You can do it!

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Mole Practice Quiz #2**

1. N2S2

N: \_\_\_\_\_\_\_\_\_\_\_

S: \_\_\_\_\_\_\_\_\_\_\_

2. KMnO4

K: \_\_\_\_\_\_\_\_\_\_\_

Mn: \_\_\_\_\_\_\_\_\_\_\_

O: \_\_\_\_\_\_\_\_\_\_\_

**Empirical and Molecular Formula Practice**

3. Which is an empirical formula?

a. C6H12O6

b. C2H4NO

c. C2H6

d. All of the above

4. Fill in the blanks:

Percent to \_\_\_\_\_\_\_\_\_\_\_\_\_\_, Mass to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Divide by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Multiply ‘til whole.

5. A compound contains 0.0130 mol carbon, 0.0390 mol hydrogen, and 0.0065 mol oxygen. What is its empirical formula?

6. A compound consists of 72.2% magnesium and 27.8% nitrogen by mass. What is its empirical formula?

|  |  |  |
| --- | --- | --- |
| STEPS: | Element 1: \_\_\_\_\_\_\_\_\_\_\_ | Element 2: \_\_\_\_\_\_\_\_\_\_\_ |
| 1. Convert from PERCENT to MASS |  |  |
| 2. Convert from MASS to MOLES |  |  |
| 3. Divide both numbers by the smallest number of moles |  |  |
| 4. Multiply both numbers by the same number so that they’re whole |  |  |
| 5. Write the empirical formula |  | |

7. A compound’s empirical formula is C3H7 and its formula mass is 86 g/mole. Find its molecular formula.

8. A compound’s empirical formula is C3H3O and its formula mass is 110 g/mole. Find its molecular formula.